

ANNUAL REPORT FOR YEAR FIVE
(October 1, 2008 – July 14, 2009)

AND

ANNUAL IMPLEMENTATION PLAN FOR YEAR SIX
(July 15, 2009 – July 14, 2010)

The Egyptian Antiquities Conservation Project (EAC)
USAID Agreement No. 263-A-00-04-00018-00

Awarded to

THE AMERICAN RESEARCH CENTER IN EGYPT (ARCE)

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by the

USAID Program Office of Productive Sector Development / Office of the Environment
USAID / Egypt

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In collaboration with the United States Agency for International Development and the
Egyptian Ministry of State for Antiquities



USAID
FROM THE AMERICAN PEOPLE



INTRODUCTION

This is the annual report for Year Five and the implementation plan and budget for Year Six of the Egyptian Antiquities Conservation (EAC) Project, Cooperative Agreement No. 263-A-00-04-00018-00, awarded to the American Research Center in Egypt (ARCE) by the United States Agency for Development (USAID) on July 15, 2004.

On July 30, 2008, ARCE sent a proposal to USAID for furthering conservation and training initiatives by extending the EAC grant through July 2014. **On July 7, 2009 USAID signed Modification No. 6, increasing the estimated value of the EAC Agreement to LE 149,851,153 and extending the completion date until July 14, 2014.**

The goal of the EAC Project is to safeguard Egypt's cultural heritage and to promote tourism through the development of the Egyptian Supreme Council of Antiquities' (SCA) institutional capacity and the conservation of specific historic sites.

CYCLE ONE PROJECTS

The following five projects were approved by USAID for Cycle One subproject implementation, scheduled to commence in Year One.

The project descriptions on the following pages state accomplishments to date and planned activities under the EAC Program Plan for Cycle One funding.

1. Project Name:	Field School for SCA Inspectors Ancient Egypt Research Associates, Inc. (AERA)
Grantee:	(AERA)
Period/Type:	Institutional Development
Location:	Giza Plateau
Start Date:	Dec-06
End Date:	Requested extension to July 2014
Budget (LE):	3,711,479

Statement of the Project: ARCE originally planned to conduct two field school training courses at the Giza Plateau Mapping Project, under the direction of Dr. Mark Lehner, thus enabling a continuing cadre of antiquities inspectors to receive practical and theoretical training. In 2006, the Field School introduced a new "Apprenticeship Program," aimed at consolidating specific skills for individual trainees to attain a higher level of competence in their respective fields. Each student designed a research strategy for a chosen archaeological project that must be derived from an archaeological site or material that the student is actually familiar with. Students learned to formulate a coherent research design scope, which includes duration, size and qualifications of crew, and budget.

Additional Funding: In response to the emphatic support and appreciation shown by Dr. Zahi Hawass, Secretary General of the Supreme Council of Antiquities, ARCE increased funding in Year Three to conduct two additional field school training seasons at the Giza Plateau Mapping Project, under the direction of Dr. Mark Lehner. The ARCE Field School has won public recognition as a "model of reform" within the SCA, and a successful capacity building project that garners expertise from the international archaeological community to share knowledge about excavation, recording and conservation techniques and standards in a "hands-on" environment.

Implementation Schedule:

Season One (January 20-March 17, 2005): Beginners Field School completed

Season Two (October 14–December 22, 2006): Apprenticeship and Advanced Field School completed

Season Three (February 10–April 4, 2007): Second Beginners Field School completed

Season Four: A second Advanced Field School has been postponed until Fall 2009

Accomplishments in Year Five: A fourth ARCE-funded Field School season was conducted from Feb. 6 to April 3, 2009. This Advanced Field School was offered to trainees who graduated successfully from the Giza Beginners' Field School (2007) and the Luxor Salvage Archaeology Field School (2008), enabling the trainees to acquire experience and to practice their newly acquired skills.

In July 2009, USAID approved an extension to the grant with additional funding for the continuation of the Field School for SCA Inspectors.

Estimated Budget for Year Six: See Cycle Five description below (LE 3,711,479 spent to date)

2. Project Name:	Marina El-Alamein Site Presentation
Grantee:	Agnieszka Dobrowolska
Period/Type:	Roman/Preservation of Egypt's Cultural Heritage
Location:	Mediterranean Coast
Start Date:	Jun-05
End Date:	cancelled
Revised Budget (LE):	2,558,176

Statement of the Project: The goal of this project is to present the site to the general public, and to protect and preserve it by permitting public visitation in an organized and controlled way. The project plans to remove debris dumps, landscape the area, and integrate existing archaeology into a more accessible and recognizable historical site for display and presentation to visitors. The project plans to design and construct entrance facilities comprising a parking area, entrance gate, ticket and information office, and to create a visitor's route through the area, install signage and lighting, and adapt an enclosed area of the ruins for the display of artifacts.

Implementation Schedule: The project consists of three stages of work, commencing in June 2005 and ending December 2007. The third stage, implementation of site presentation design, was approved in August 2006, and the budget was revised to add this stage.

Accomplishments in Year Four: Although it began as a collaborative effort between the SCA, ARCE and the Polish Center for Mediterranean Studies in Cairo, completion of the last component was delayed during the past year as a result of a change in directorship at the Polish Institute. A recent intervention by Dr. Zahi Hawass suggests the planned resumption of activities at Marina, with a revised design for the entire site.

Year Five Planned Activities: There are no planned activities at Marina El-Alamein at this time.

Estimated Budget for Year Five (LE): 0 (LE 2,558,176 spent to date)

3. Project Name:	Sikait
Grantee:	ARCE-managed
Period/Type:	Eco-tourism
Location:	Eastern Desert
Start Date:	Cancelled
End Date:	Cancelled

Budget (LE):	0
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Statement of the Project: The proposed conservation project for the site of Sikait could not be initiated because it was not possible to secure clearance for the project from the Egyptian government. Following extensive meetings with the SCA, USAID, the US Embassy, and the ARCE Board of Governors Executive Committee, ARCE regretfully decided to cancel the Sikait conservation project.

4. Project Name:	Conservation and Display of Early Cells at St. Anthony's Monastery
Grantee:	Fr. Maximus al-Anthony
Period/Type:	Medieval/Preservation of Cultural Heritage
Location:	Red Sea Coast
Start Date:	May-06
End Date:	Revised December-08
Budget (LE):	360,800

Statement of the Project: This group of early structures relating to the historic development of the monastery will be conserved and displayed to visitors to enhance their understanding of the site. A team of archaeologists, conservators and skilled technicians will record the discovery, conserve the structural remains, and erect a protective shelter over them. Since the discovery is beneath the church floor, this shelter will be covered with a glass ceiling at the floor level of the church so that visitors will be able to look down at the preserved remains. Information and signage will inform visitors about the site.

Implementation Schedule: The schedule was revised for project startup in Spring 2006, due to SCA delay in approving project application. Completion is planned for April 2008.

Accomplishments in Year Five: A protective covering for the glass floor was installed in early 2009. Information displays have been designed and translated.

Year Six Planned Activities: Information displays will be produced and installed in early 2010.

Estimated Budget for Year Six: LE 12,855 (LE 347,945 spent to date)

	Conservation Of Roman Wall Paintings In Luxor
5. Project Name:	Temple
Grantee:	Luigi De Cesaris
Period/Type:	Roman/Preservation of Cultural Heritage
Location:	Luxor
Start Date:	Nov-05
End Date:	Dec-09
Revised Budget (LE):	118,606 (Test Cleanings) + 2,621,667 (Conservation)

Statement of the Project: The Luxor Temple, on the UNESCO list of most important World Heritage sites, contains a series of unique Roman wall paintings datable to the reign of the Emperor Diocletian (AD 284-305). In the late 3rd century AD, the Temple was incorporated into a Roman legionary fortress. One of the inner rooms of the temple was converted into a shrine dedicated to the Roman emperors. The original Pharaonic decoration was plastered over and a new cycle of paintings was added showing the emperors and their courts. Since they were first excavated in the 19th century, these paintings have suffered from neglect and in recent years the deterioration has accelerated. This is largely due to atmospheric humidity and serious air pollution caused by the Nile cruise boats moored nearby.

The location of the project is on the main tourist route through the Luxor Temple, and this project will provide maximum exposure to USAID's commitment to the preservation of Egypt's cultural heritage and to tourism enhancement.

Four test cleanings in selected areas of the shrine were completed in November 2005. The report was received from the conservators, showing that the tests were successful, and recommending a conservation project.

ADDITIONAL FUNDING FOR CONSERVATION OF ROMAN WALL PAINTINGS IN LUXOR TEMPLE:

Implementation: This project is carried out in collaboration with The Epigraphic Survey at Chicago House in Luxor. Chicago House will provide logistical support, e.g. scaffolding, SCA permission and clearances, as well as the services of their photographer, Yarko Kobylecki, to undertake photo-documentation of the paintings. Based on the results of the Test Cleanings conducted in November 2005, it is now planned to continue with the project under EAC Cycle Two. The schedule is determined by Chicago House's season, which operates from mid-October to mid-April each year. Three two-month campaigns are planned for the fall of 2006, 2007 and 2008. The paintings will need to be adequately protected from dust and bird droppings during the time between campaigns. Chicago House and ARCE will submit designs for protection treatments to the SCA in Spring 2008.

Accomplishments in Year Five: A third and final season was conducted in October-December, 2008. The cleaning of paintings on the eastern wall were completed, as well as limited areas on the western wall. Photography for publication of a book on the Roman Wall Paintings was done by the Vescovo Brothers in February 2009.

Estimated Budget for Year Six: LE 85,475 (LE 2,536,192 spent to date)

CYCLE TWO PROJECTS

October 1, 2005 – July 15, 2009

Cycle Two projects approved by USAID in EAC's Year Two plan are:

- Red Monastery Wall Paintings Conservation Project (Sohag)
- Conservation of the Mosque of Aslam al-Silahdar (Cairo)
- Conservation of Pharaonic Tombs (Luxor)
- Site Management Implementation
- Museum Management Training (extended to Oct. 31, 2010)

CYCLE TWO PROJECT DESCRIPTIONS

The project descriptions below describe accomplishments to date and planned activities under the EAC Program Plan for Cycle Two funding.

6. Project Name:	Documentation and Conservation of Wall Paintings at the Red Monastery in Sohag
Grantee:	Elizabeth Bolman
Period/Type:	Coptic/Preservation of Cultural Heritage
Location:	Sohag,, Egypt
Start Date:	Sep-06
End Date:	Requested extension to July 2012
Budget (LE):	7,850,364

Introduction: The Red Monastery church contains the only complete pre-medieval paintings surviving in Egypt in their original functioning context. The church dates to c. AD500 and the paintings are from 6th to 9th centuries. Since 2002, ARCE/EAP has been working with the Italian wall painting conservators, Luigi de Cesaris and Alberto Sucato, under the direction of Elizabeth Bolman, on a conservation project to historically document, clean and protect these important paintings. The project will continue under EAC Cycle Two funding.

Implementation: Due to the necessity to schedule around Coptic holidays and seasonal temperature conditions, five short (rather than three long) campaigns have been planned under EAC Cycle Two beginning in Fall 2006.

Accomplishments in Year Five: The fifth conservation season was successfully completed in Spring, 2009.

With this campaign, approximately half of the paintings in the church have been conserved, revealing details of medieval Coptic painting of significant art historical value. Photographic documentation, art historical and graphic documentation are all proceeding in parallel with conservation work. In July 2009, USAID approved an extension to the grant with additional funding for the continuation of work at the Red Monastery.

Year Six Planned Activities: See Cycle Five project descriptions below.

Estimated Budget for Year Six: 118,335 (LE 7,732,029 spent to date)

7. Project Name:	Conservation of the Mosque of Aslam Silahdar in Cairo
Grantee:	Christophe Bouleau (ARCE in partnership with Aga Khan Cultural Services in Egypt)
Period/Type:	Islamic/Preservation of Cultural Heritage
Location:	Cairo, Egypt
Start Date:	May-06
End Date:	Mar-09
Budget (LE):	3,453,705

Statement of the Project: The Mamluk mosque of Aslam al-Silahdar dates from 1344 and is located in the Darb al-Ahmar district, within the old city walls of historic Cairo. No conservation action has been taken on the building since the 1920's and its condition has deteriorated. Located at the connecting point between the recently conserved Bab Zuwayla and Al-Azhar Park, the mosque is ideal as a catalyst for local development through cultural tourism. ARCE has formed an institutional partnership with Aga Khan Cultural Services in Egypt (a local division of the Aga Khan Trust) to oversee and fund the work. The conservation project is designed to ensure the long-term structural stability of the building, to conserve the authenticity of the historical artifacts it includes and to reinstate the architectural integrity of the monument by addressing the problems stemming from decades of neglect.

Implementation: The project is estimated to take 3 years, divided into three phases:

- Preparation (surveys, documentation, mobilization) : 3 months
- Conservation work (foundation stabilization, infrastructure, interior repair, signage): 30 months
- Post-field work (photodocumentation, publication): 3 months

Accomplishments in Year Five: Conservation of the mosque was completed on schedule. An official ceremony inaugurating the newly-renovated square, shops and mosque was held in early fall 2009.

Estimated Budget for Year Six: 0 (LE 3,453,705 spent to date)

Total Aga Khan share of the project cost LE 1,728,970 (not included in above budget)

8. Project Name:	Tomb of Menna (Pharoanic Tombs)
Grantee:	Dr. Melinda Hartwig (Georgia State University)
Period/Type:	Pharoanic/Preservation of Cultural Heritage
Location:	Luxor
Start Date:	Feb-07
End Date:	December-09
Budget (LE):	2,023,588

Introduction: The tomb of Menna (TT 69) is one of the finest painted non-royal ancient Egyptian tombs. The tomb has been open to the public since the 1960's, which, along with environmental changes in Egypt, has resulted in the deterioration and destabilization of the chapel paintings. In the next two years (2007-2008), the project proposes to conserve, document, protect, and publish the tomb of Menna and its paintings in order to bring this remarkable tomb to a larger audience.

Implementation: Two main field seasons were originally proposed, following a brief assessment of the tomb by the principal project staff in Spring 2007. The second season in Fall 2008 was shortened, due to necessary changes and leave of absence of key members in the team. A third season will be conducted in Year Five, within the estimated budget for the project.

To record the paintings and texts, the project proposes to photograph the decoration digitally and in 35mm black and white film. X-ray fluorescence (XRF), X-ray diffraction (XRD), RAMAN spectrometry, and chromatic characterization will be utilized to gauge the physio-chemical composition of the pigments, varnishes, etc., which will provide important information for conservators and art historical analyses. To produce line drawings of the decoration and epigraphy for publication, digital photographs of the wall decoration will be referenced three-dimensionally in a process known as “digital epigraphy.” The application of these technologies to the tomb walls is the first of its kind: they are non-invasive and will aid the recording and preservation of the tomb.

Accomplishments in Year Five: Conservation of paintings was completed in October 2008,. Due to hospitalization of a team member, the Fall 2008 campaign was shortened to allow for a second short campaign in the Spring of 2009 to conduct final digital photography.

Year Six Planned Activities: Final site presentation installations (wooden floor, handrails, lighting and display signs) will be made in Fall 2009.

Estimated Budget for Year Six: LE 83,279 (LE 1,940,309 spent to date)

ARCE INSTITUTIONAL DEVELOPMENT PROJECTS:

9. Project Name:	Site Management Implementation
Grantee:	ARCE-managed
Period/Type:	Institutional Development
Location:	Medinet Habu / Marina
Start Date:	Oct-06
End Date:	Dec-08
Budget (LE):	459,375

Introduction: Under the EAP Post-Grant Conservation Program, ARCE funded a site management training project for SCA employees. This project focused on the present conditions and the opportunities for enhancement on the west bank at Luxor. Trainees were drawn from the SCA inspectors currently stationed at the regional inspectorates between Esna and Sohag. Part of the training program involved creating a management plan for the Medinet Habu temple complex.

Implementation: Under the EAC Cycle Two program, the management plan for Medinet Habu produced in the training project will be used to create specifications for a contract to be competitively awarded in Year Three for site improvements at Medinet Habu. The site of Medinet Habu was selected because there has been an active American archaeological presence since 1925. The site is a discrete area with clear limitations but it is also part of the greater Luxor archaeological landscape in which the lessons learnt here could be applied on a broad front. The project at Medinet Habu will be carried out in collaboration with Chicago House.

An appropriately sensitive and easily maintained plan will involve installation of pathways, directional and information signage in Arabic and English, enhancement of toilet facilities, designated viewing areas with sunshades at strategic points (palace, Sea Peoples battle scenes, lion hunt scene, etc.). Participation by the tourism sector and local community and awareness raising is also envisaged as part of the plan.

Accomplishments in Year Five: Slow progress is being made with in-house graphics and production of a reduced number of signs to be installed at Medinet Habu. Texts for the signs will be submitted to Chicago House in October, 2009 for review and approval.

Year Six Planned Activities: ARCE will manage in-house finalization of text in English and Arabic, as well as graphic layout for the signs in Year Six, and will estimate the cost for production and installation of the signs in the Year Seven.

Estimated Budget for Year Six: (LE): 0 (LE 459,375 spent to date)

10. Project Name:	Egyptian Museum Registrars Training
Grantee:	Dr. Janice Kamrin (ARCE-managed)
Period/Type:	Institutional Development
Location:	Egyptian Museum
Start Date:	August-06
End Date:	Requested extension to October 2010
Budget (LE):	5,040,597

Introduction: This training program seeks to create and institutionalize a Registrations and Collections Management Department (RCMD) within the Egyptian Museum, which will then serve as a model for the Museum Sector of Egypt's Supreme Council of Antiquities (SCA). In order to implement the project, four new registrars will be identified and trained, appropriate equipment and supplies will be acquired, and a collection management system (in both manual and computerized formats) will be designed. The implementation period also runs concurrently and complementarily with a \$49,400 planning grant, awarded to ARCE by The Andrew W. Mellon Foundation, providing support for the assessment and selection of new museum collections management software.

Implementation: The program has two components:

1. Registrar Training: Four newly appointed registrars will receive daily hands-on training from 9:30-12:00 followed by individual project work for the remainder of the day. Starting in January 2007, a two-week seminar will be delivered every three months by visiting project consultant, Rachel Mauldin, on the components and procedures of the Collections Management System. At the end of the program, the Registrations and Collections Management Department (RCMD) Protocol will be finalized and delivered by the Project Director to ARCE and the Museum.
2. Development of a Collections Management System: An off-the-shelf collections management system for the Egyptian Museum will be chosen and implemented. This will be a state-of-the-art system, but will be adapted for use in the current environment of the SCA's museum sector. Funds from the Mellon Grant support travel and specific technical assistance to support the identification, selection, and purchase of the system. Once chosen, project staff will work to integrate newly developed collections management procedures into the computerized system. The comprehensive collection management system will include both manual and computerized components, such as: object movement, accessioning, outgoing loans, in-house exhibitions, scholar study, condition reporting, and gallery inventory.

Accomplishments in Year Five: Mod. No. 6, signed in July 2009, extended this training program until October 2010, to correspond with the end of the Andrew W. Mellon Foundation-funded Egyptian Museum Database Project. Three seminar sessions were given by Rachel Mauldin in November, February and June. Daily on-the-job training continued within the newly created department, focusing on adapting the RCMD to take advantage of the new KE EMu database.

Year Six Planned Activities: The main focus will be on consolidation of procedures within the museum and incorporation of the new museum KE EMu database. Three registrars are scheduled to attend the 3rd International Registrars Symposium (Chicago) in November 2009. ARCE will follow the required procedures with the Office of Education and Training at USAID.

- 1st Quarter: Ninth seminar session planned for November 2009.
- 2nd Quarter: Continue on the job training.
- 3rd Quarter: Continue on the job training.
- 4th Quarter: Tenth and final seminar session planned for May 2010

Estimated Budget for Year Six (LE): 1,057,789 (LE 3,002,480 spent to date)

LUXOR EAST BANK AMENDMENT

March 1, 2007 – July 14, 2014

Introduction

Modification No. 1, dated February 25, 2007, awarded an additional LE 50,200,000 to the EAC Grant and revised the program description, enabling ARCE to address the conservation needs of the Karnak, Mut and Luxor temple complexes following the implementation of the USAID-funded groundwater lowering system. The award included additional ARCE operating expenses, and funding for emergency interventions to be sub-granted for implementation by principal stakeholders (referred to herein as “Cycle Three.”

ARCE-managed projects under the Luxor East Bank Groundwater Lowering Response have five main deliverables:

1. A monitoring system;
2. A conservation program for the temples of Karnak, Mut and Luxor;
3. A training program for SCA conservators;
4. Establishment of a conservation center with laboratory, and
5. Documentation and publication of conservation activities.

The period March 1 to September 30, 2007 represents the mobilization period for Cycle Three. The original timeframe for project implementation (between October 1, 2007 and July 14, 2009) was not sufficient to complete the planned activities, once the mobilization period and needs assessments were completed. With USAID approval of ARCE’s requested extension, on-site activity in Luxor will be extended until 2013, allowing for demobilization and reporting in 2014. The goals for individual activities are outlined below.

Regarding Cycle Three administration, ARCE has the following goals:

- Obtain SCA approval for the general concept of the project.
- Coordinate with stakeholders.
- Establish office and hostel in Luxor.
- Identify specialist personnel and hire staff.

Cycle Three Program Activity Descriptions

The following projects were approved by USAID for Cycle Three subproject implementation, commenced in Year Three. **The project descriptions on the following pages state accomplishments in Year 5 (Oct. 1, 2008 – July 14, 2009) and planned activities under the EAC Program Plan for Year Six (July 15, 2009 – July 14, 2010).**

1. Activity Name:	Emergency Conservation at Luxor Temple
Principal Consultants:	ARCE staff and consultants and Chicago House (Oriental Institute, University of Chicago)
Period/Type:	Preservation of Cultural Heritage
Location:	Luxor Temple, East Bank, Luxor
Start Date:	March-07
End Date:	July-12
Budget (LE):	4,954,796

Statement of the Project: As yet, the effects of the groundwater lowering remain unknown; however, it is anticipated that the lowering may cause increased salt efflorescence that may destroy the relief decoration on the temple walls and their foundations. Furthermore, it is possible that structural destabilization may occur. In order to address the negative effects as they occur with immediate remedial intervention, ARCE’s Luxor East Bank Groundwater Lowering Project includes an Emergency

Intervention component. With these dedicated funds, ARCE, Chicago House, and other stakeholders can hire the necessary specialists and procure the necessary equipment and supplies to conduct the conservation intervention. ARCE anticipates that such projects will include desalination of decorated and undecorated stone, the replacement of badly deteriorated blocks where possible, moving displaced blocks from direct contact with a wet environment, and correction of any destabilized architectural elements, etc.

Accomplishments in Year Five: Any conservation treatment within the Luxor Temple complex requires the active involvement of Dr. Ray Johnson and his Chicago House (Oriental Institute, University of Chicago) team. With the existing conditions report prepared by ARCE in Year 4 as a background and in close coordination with Dr. Johnson, ARCE identified potential conservation projects within Luxor Temple, including an archaeological investigation of the Roman ruins within the temple. Chicago House requested SCA Permanent Committee clearance for the conservation work planned for Year Six.

Year Six Planned Activities and Schedule: According to the above-mentioned project identification, ARCE will expose and document the surviving architectural remains of the late Roman fortress built within the Luxor Temple complex, for future epigraphy by Chicago House specialists. ARCE's work will include a condition survey, by photography and documentation, preparation of detailed plans and elevations of the architectural remains, and processing of finds made during excavation.

Starting December, 2009, ARCE will supply materials and technical support for an SCA project to clean and desalinate columns in the Ramesses II Court at Luxor Temple.

In January 2010, ARCE will install pest netting at the door openings and roof openings of the Sanctuary of Amun in Luxor Temple.

Also in January 2010, at the request of SCA, ARCE will support a Salvage Archaeology Field School (SAFS) for recording archaeological layers in sample trenches of a mound of debris near the Luxor Temple, prior to its removal, will be implemented under the direction of Dr. Mark Lehner. This 12-week field school for 28 SCA inspectors, which was not originally in ARCE's Cycle 5 plan, will replace one of the three Giza Field Schools originally approved in the EAC Year 5 workplan.

- 1st Quarter: Plan and mobilize staff and materials for upcoming projects.
- 2nd Quarter: Purchase materials for stone conservation. Commence Ramesses II column conservation project. (Dec - June). Commence Luxor Roman Bastion project (Oct – Dec)
- 3rd Quarter: Install pest netting in the Amun Sanctuary. (Jan-Feb) Commence SAFS (Jan-March)
- 4th Quarter: Prepare reports and documentation.

Estimated Budget for Year Six: LE 2,545,258 (LE 1,271,038 spent to date)

2. Activity Name:	Emergency Conservation at Karnak Temple
Principal Consultants:	ARCE staff and consultants
Period/Type:	Preservation of Cultural Heritage
Location:	Karnak Temple, East Bank, Luxor
Start Date:	April-07
End Date:	July-12
Budget (LE):	15,967,241

Statement of the Project: The effects of the groundwater lowering at Karnak Temple include salt efflorescence. No structural destabilization is evident at this time and monitoring is ongoing. Conservation intervention activities at Karnak Temple are included in the Emergency Intervention component of the Luxor East Bank Groundwater Lowering Project. ARCE's coordination effort between Chicago House, the Franco-Egyptian Centre (CFEETK) and the SCA has been successful. Khonsu Temple, located at the southwest quadrant of the Karnak Temple complex, has been the focus based upon the needs of the assessment and the SCA has given permission for conservation to commence.

Accomplishments in Year Five:

The first season of the Talatat project (Oct-08 to June-09), started the process of identification, conservation and documentation of more than 15,000 talatat blocks moved from the Akhnaton temple at Karnak.

Conservation work began last season on the east and west walls of the Khonsu Temple, and will be continued next year. Replacement of deteriorating stonework was started in the walkway outside the temple, and repairs were started in the roof including replacement of 15 square meters of new sandstone slabs where gaps have been found in the roof.

Epigraphy by Chicago House documented the reused, inscribed blocks and fragments in the flooring, foundations and roof, wherever ARCE stonework revealed the need, prior to completion of repair work.

A season of conservation was carried out by Italian conservators (Christina Vazio et al) to clean and restore paintings in Khonsu chapel #12, during Winter 2008-09.

Year Six Planned Activities and Schedule: Work on the Talatat project will continue as described in Year 5, until June 2010. Tasks include: transfer from the storage of each block for cleaning, stabilization and documentation. A database will be maintained, and blocks will be returned to newly built mastabas in the storage facility after conservation.

At Khonsu Temple, a gutter and drainage spouts will be installed in the roof. A sandstone ramp will be constructed to connect the eastern and northern walkways. Sandstone slabs will be installed down the center axis of the temple. A new red pavement floor will be installed and 13 fragments will be incorporated to imitate the original configuration.

Epigraphy by Chicago House will continue work at Khonsu Temple.

Estimated Budget for Year Six: LE 5,232,278 (LE 6,791,886 spent to date)

3. Activity Name:	Conservation of the Mut Temple Foundations
Principal Consultants:	Dr. Betsy Bryan (Johns Hopkins University)
Period/Type:	Preservation of Cultural Heritage
Location:	Mut Temple, East Bank, Luxor
Start Date:	April-07
End Date:	June-09
Total Budget (LE):	2,976,170

Statement of the Project: This project is a continuation of work begun under the extension of the EAP grant. The Conservation of the Mut Temple Foundations project will focus on the three supporting walls of the temple (north, west and southwest) and the walls of the temple's interior substructure. The temple's mud-brick enclosure wall will be conserved. The earth and stone foundations of the Mut Temple have subsided, in part due to the rise and fall of groundwater. In particular, a group of sandstone foundation blocks of the west wall have slipped out of place, thus endangering the entire west exterior and causing the crumbling of the adjacent north (front) wall of the temple. The west wall is an important historical monument as it bears a lengthy inscription that needs to be documented and preserved. This project will consolidate two exterior and several interior foundation walls and pave the interior space to replicate the original surface level and enable visitor access. Decorated fragments from a building of Hatshepsut that were reused in the foundations, will be retrieved, conserved and displayed on site. In addition, a series of Sakhmet statues will be excavated and reinstalled properly on impermeable bases so that they once more form part of a line facing the west wall of the temple. In combination with the Preservation of the Sacred Lakes project, the result of the EAC Add-on will not only be a preserved monument, but also an archaeological park that enhances the visitor experience of the Luxor antiquities.

Accomplishments in Year Five. Work has been completed on this project. The west wall of the Mut Temple has been rebuilt with a impermeable layers of brick and mortar placed beneath the wall. Part of the northern perimeter wall of the temple porch was dismantled and decorated blocks were conserved and

re-used in rebuilding the wall. A series of Sekhmet statues were conserved and set on mastabas for display and protection from rising damp.

Estimated Budget for Year Six: LE 0 (LE 2,976,170 spent to date)

ARCE-Managed Activities:

In addition to the conservation work inside Khonsu Temple, ARCE also directly implements or manages four other major activities included in the Luxor East Bank Groundwater Lowering Response Project. ARCE has chosen to implement these activities, e.g. monitoring, training, establishing and equipping a conservation center, as it will prove more cost-effective than sub-contracting such activities to an outside organization.

Following discussions with the USAID/Cairo program office during the period April – June 2007, it was agreed that ARCE would establish a financial monitoring system that allows reporting of progress on the five ARCE-managed activities. Costs in the Modification No. 1 OE budget were allocated to each specific ARCE-managed output listed below.

In its Year Four workplan, ARCE requested USAID approval for a budget revision totaling LE 84,260,450 in program/cycle costs over the 5-year project and a total of LE 28,381,520 in administrative costs that are not specifically allocable to program outputs.

Modification 4, signed in November 2007 did not include the above-requested budget revision.

Modification 5, signed May 3, 2009, which obligated 37,730,886 to the grant, also did not include the above-mentioned budget revision.

Modification 6, signed July 7, 2009 extended the EAC Grant period to July 14, 2014, with an additional funding amount of LE 36,609,183. The above-mentioned budget revision was made in Mod. No. 6.

The following tables describe the four ARCE-managed activities, state **accomplishments in Year Four (Oct. 2007 – Sept. 2008)** and **planned EAC program activities for Year Five (October 1, 2008 – July 14, 2009)**.

4. Activity Name:	Groundwater and Structural Monitoring
Principal Consultants:	ARCE staff and consultants
Period/Type:	Preservation of Cultural Heritage
Location:	Karnak, Mut and Luxor Temples
Start Date:	April-07
End Date:	July -12
Total Estimated budget:	LE 4,667,831

Statement of the Project: There is a concern that groundwater lowering may destabilize architectural elements of Luxor's long-standing monuments. Therefore, there is an absolute need to monitor the monuments for possible change. Groundwater and structural monitoring was a component of the Salvation of Luxor and Karnak Temples, funded by USAID, overseen by SWECO and implemented by EGYCO (engineering) in June 2006. The SCA contracted with SMT Associates (surveying consultants) for ongoing structural monitoring of the temples. Starting in March 2007, ARCE provided oversight, technical assistance, operations supervision and advice, emergency response, and material support in the

form of equipment. In addition to monitoring above ground structures, ARCE monitors the groundwater levels and its effects through subsurface investigations.

Accomplishments in Year Five: ARCE has entered into a contract with SMT Associates in early 2009 to provide additional observation on supplemental monitoring points in the Luxor Temple. ARCE continued its routine monitoring program, taking readings in both Luxor and Karnak Temples every three days, in conjunction with SMT Associates. Semi-annual reports were issued.

Year Six Planned Activities: As per the Mod. No. 6 extension of the EAC Grant, this activity will continue to July 2012. ARCE will continue to collect periodic measurements in Karnak and Luxor Temples, and to compile monitoring data in the form of semi-annual reports.

ARCE will work with the SCA and SMT Associates to make recommendations related to how the monitoring program will be continued after its initial performance period.

Estimated expenditures in Year Six: LE 493,081 (LE 2,370,030 spent to date)

5. Activity Name:	Preservation of the Sacred Lakes
Principal Consultants:	ARCE staff and consultants
Period/Type:	Preservation of Cultural Heritage
Location:	Karnak and Mut Temples, Luxor
Start Date:	April-07
End Date:	July-10
Total Estimated budget:	LE 3,746,541

Statement of the Project: This project will address the problems of the groundwater lowering for the great sacred lake of Amun at Karnak Temple and the somewhat smaller sacred lake of Isheru at Mut Temple. The Karnak sacred lake is a focal point for tourists so water levels must be maintained. The Mut temple sacred lake is a natural refuge for wildlife but has been contaminated with chemicals and is now threatened by extinction due to the groundwater lowering project. The lake will be the heart of the planned Mut Temple archaeological park. For both lakes, the stone enclosure walls, if appropriate, and ancient quays will be conserved and a system for holding the water inside the lake perimeter will be created.

Accomplishments in Year Five: Investigation of the lake in 2008 led to identification of the problem of the heavy underwater plant growth caused by filling the lake with Nile water, in combination with warm weather conditions. ARCE pumped out the water to lower the level so that organic material could be removed, and then allowed it to refill with groundwater. This required connecting the deep well inside the Karnak temple to the pipelines designed to fill the lake from the Nile. Maintenance procedures were put into place by arranging for a boat with long handled net to conduct regular surface cleaning.

In November 2008 ARCE began to repair and fix the dewatering system at Mut Lake, which had been temporarily installed in Year Four. Two pipeline sections both outside and inside the temple were taken apart and re-installed to protect them from direct sunlight and high temperature. To control the groundwater level in the excavation areas, 22 wells were dug in different locations, each fitted with a 1-inch submersible pump. To clear the area around Mut Lake of heavy reeds and camel thorn, ARCE cooperated with the SCA Weed Control Team to spray this area with effective systematic defoliant. One month later, as the reeds and camel thorn died off and dried out, ARCE hired a team of laborers to clear reeds from areas adjacent to the planned archaeological excavation. This action was very effective and new weed growth was greatly reduced.

At the end of Year Five, follow-up assessment of the maintenance plan and lake conditions determined that further action is needed in Year Six.

During the 2008-09 season, the SCA excavated in an area on the south side of the western entrance of Karnak Temple, revealing rising groundwater around exposed walls and a ramp that once extended into

the Nile. The SCA requested that ARCE sink two wells in front of this excavation to pump out the water. The pumps were installed, but not connected.

Year Six Planned Activities and Schedule:

1st Quarter: Monitor the effective circulation and treatment of water in the Karnak and Mut Lakes and re-drain and treat Mut Lake. Conduct experiments to identify effective treatments to deter organic growth.

2nd Quarter: Set up means for circulation of fresh ground water in both lakes. Chemically treat the water for plant eradication.

3rd Quarter: Refill the lakes with fresh groundwater. Continue maintenance plan. Hand over work to SCA.

Estimated expenditures in Year Six: LE 603,802 (LE 3,142,739 spent to date)

6. Activity Name:	Field School for Architectural Conservators
Principal Consultants:	ARCE staff and consultants
Period/Type:	Institutional Development
Location:	Karnak/Mut/Luxor Temple Complexes, Luxor
Start Date:	April-07
End Date:	July-12
Total Estimated budget:	LE 9,349,097

Statement of the Project: Karnak and Luxor temple complexes are massive monuments with acres of decorated and undecorated stone. In order to be able to manage the long-term responsibility of preserving these monuments, the SCA requires institution building through training. ARCE's Field School for Architectural Conservators will result in the creation of a cadre of Egyptian conservators who have participated in the project from its inception and who will be taking the lead in conservation activities at the conclusion of the project. The purpose is to enable the conservation to continue after the lifetime of the project, thus ensuring a lasting legacy of the Luxor East Bank Groundwater Lowering Response Project. Topics of study would include inspection/analysis, assessment of intervention, treatments, documentation and publication.

Implementation Schedule: The field school will be conducted throughout the term of the project so that trainees will have participated in the entire conservation process upon completion of their training. Furthermore, by participating in various conservation projects led by professional conservators at all three temples during the duration of the Luxor East Bank Groundwater Lowering Response Project, trainees will experience a variety of different approaches in the face of real situations.

Accomplishments in Year Five: The second session of the conservation field school was conducted in which 25 SCA conservators were trained in architectural conservation on the Khonsu Temple walls and small object conservation techniques. Topics included: training in modern methods and standards of documentation, e.g. writing condition reports, photography, damage mapping; the use of alternatives to Portland cement; ancient techniques of stone cutting; properties and identification of different salts found within monuments and their modern treatment; and the use of various modern stone consolidants, use of the total station, hands on wall cleaning and conservation techniques.

Year Six Planned Activities and Schedule: In Year Six, ARCE will review previous field school feedback and address students' needs by adding specialized classes next season. Between October 2009 and April 2010 the Conservation Field School will conduct hands on training for 27 conservators in three locations: Khonsu Temple, where painted reliefs will be cleaned, the Eures Gate in Karnak Temple, where a masonry support will be installed and the structure will be cleaned and treated for smoke damage, and new mortar patching will be applied on gaps in the wall; and the Hypostyle Hall of Karnak Temple, where the western wall will be desalinated and cleaned to remove dirt and dust.

- 1st Quarter: Review of first session and design and planning for third session.
- 2nd Quarter and 3rd Quarters: Conduct third season from October 2009 to April 2010
- 4th Quarter:

Estimated expenditures in Year Six: LE 2,936,157 (LE 1,921,668 spent to date)

7. Activity Name:	Luxor Conservation Center
Principal Consultants:	ARCE staff and consultants
Period/Type:	Institutional Development
Location:	Karnak Temple, Luxor
Start Date:	April-07
End Date:	Extension requested to July 2012
Total Estimated budget:	LE 4,674,632

Statement of the Project: The Luxor Conservation Center will be created to provide classrooms for training, a computer lab for data analysis, a conservation lab for antiquities that require in-house treatment, and storage facilities for monitoring equipment. The Center will become an integral component of the Luxor East Bank Groundwater Lowering Response Project and at the end of the project it will continue to be an invaluable resource center for the SCA's mandate to preserve the monuments of Luxor. The creation of the Luxor Conservation Center will provide a vehicle for sustained conservation of the monuments.

Accomplishments in Year Five: ARCE completed construction and equipping the lab in late 2008. In July 2009, ARCE recruited a manager to establish procedures, procure supplies for the conservation laboratory. The conservation laboratory will also serve as a training venue for the field school, and for activities related to Karnak and Luxor conservation and archaeological work.

Year Six Planned Activities and Schedule: Between October 2009 and April 2010 ARCE will provide a well-equipped facility suitable for use as a conservation laboratory and for use by the ARCE conservation field school. Practical laboratory sessions will be conducted in basic conservation methods, documentation and research. The center will contain a library of reference books and articles, and students will receive training in the analytical process, as well as research procedures. The laboratory manager will document procedures for the proper function of the lab (basic health and safety manual, standardized analysis sample forms, etc.). At the end of the conservation field school season, two conservators will be selected by the SCA to be trained as lab managers.

Estimated expenditures in Year Six: LE 706,310 (LE 2,455,776 spent in to date)

8 . Activity Name:	Documentation and Publication
Principal Consultants:	ARCE staff and consultants
Period/Type:	Preservation of Cultural Heritage
Location:	Karnak/Mut/Luxor Temples, East Bank, Luxor
Start Date:	April-07
End Date:	Extension requested to July 2014
Total Estimated budget:	LE 6,588,452

Statement of the Project: *In its request for an extension to the EAC Grant, submitted by ARCE to USAID in July 2008, three separate budget line items related to publication and archiving, and approved under the original grant, Modification 1, and Modification 4, were combined into one line item under Cycle 3, to simplify the grant budget. The combined budget line items totaled LE 7,011,839. The budget includes salaries for the Publications Director (75%), Photographer/Designer (100%), Archivist (25%), and Librarian (25%), as well as subventions for book publication.*

Publishing the results of conservation and training programs remains an important goal. The vast amount of technical data and descriptive reports generated by both the Luxor East Bank Groundwater Lowering Response Project and the ARCE conservation projects funded in Cycles One, Two and Four will be invaluable to future generations both as an archive and as a series of published monographs detailing the project as a case study in conservation on a large-scale at one of the world's most significant ancient sites.

Additionally, the archaeological material discovered during the course of USAID's investment in the "Salvation of Karnak and Luxor Temples" groundwater-lowering project needs to be published for the benefit of scholars working in several different fields. This documentation activity will result in the production of an archived database containing the information collected and stored over the course of Project. It will also provide published materials including web-based archives, conservation training manuals in English and Arabic, and final published reports and case studies.

Implementation Schedule: The archival process will commence as data are collected and disseminated. Scholars will be contracted to begin writing reports about the archaeological material found in the previous project. It is expected that some archival data will be available electronically and that traditional publications will be produced in the final year of the project.

Accomplishments in Year Five: ARCE continued documentation of ongoing work on the Luxor East Bank projects and research during the period Oct. 08- July 09. ARCE's annual *Conservation Update*, a multi-paged, full-color report, was produced describing activities during 08-09. This publication was distributed to USAID personnel and ARCE's US membership. A prospectus was submitted to Yale University Press for publication of a book on the *Roman Wall Paintings in the Luxor Temple*. The Publications Director formalized a publication plan for *A Study of Artifacts Recovered during the Groundwater Lowering for Karnak and Luxor Temples Project*. A staff photographer and graphic designer was hired to assist with publication activities and the recording of conservation activities for publication.

Year Six Planned Activities: Work will continue on documentation of conservation activities in Luxor to be published in the form of articles and monographs. The manuscript for *A Study of Artifacts Recovered during the Groundwater Lowering for Karnak and Luxor Temples Project* was delivered to the Publications Director in February 2010. Yale University Press has accepted the manuscript for *Roman The Art of Maintaining an Empire: Roman Wall Paintings in the Luxor Temple*, which is due to be published by December, 2011. ARCE will enter into discussions with the Aga Khan Cultural Trust concerning publication of a book on the Aslam Silahdar Mosque conservation project.

Estimated expenditures in Year Six: LE 1,788,490 (LE 1,947,237 spent to date)

LUXOR WEST BANK AMENDMENT

March 1, 2007 – July 14, 2009

Introduction

Modification No. 3 signed in July 2007, obligated an additional award of 211,084 to ARCE for mobilization of emergency archaeological monitoring and conservation training activities in the West Bank of Luxor and the Avenue of the Sphinxes on the East Bank. This mobilization payment was in anticipation of approval of a proposal submitted by ARCE for an expanded scope of work in both areas.

Modification No. 4, signed in November 2007 awarded an additional LE 10,990,970 to ARCE for the above-mentioned activities. The award included additional ARCE operating expenses, and funding for emergency interventions to be sub-granted for implementation by principal stakeholders (referred to herein as “Cycle Four.”)

There are currently three expected outcomes under this modification:

1. Salvage Archaeology Field School – Avenue of the Sphinxes;
2. Documentation of Existing Architecture, and Conservation of Decorated Ancient and Medieval Blocks ;
3. Publication.

A fourth outcome, “Archaeological Monitoring in the West Bank of Luxor” was included in this modification, in response to the proposed groundwater lowering project surrounding Medinat Habu and other temples on the West Bank. ARCE attempted to enter into discussions with CDM in 2008, during the design stage of the project, and presented an outline for the work of the monitoring project to USAID and the SCA. The CDM project went ahead without ARCE’s involvement. After negotiations with USAID and the SCA in March 2008, it was made clear by Dr. Zahi Hawass that this would be an “Egyptian project,” and that ARCE would not participate.

These projects will operate between July 2007 and July 14, 2009. On-site activity will conclude on January 30, 2009 to allow time for final reporting, preparation of publication manuscripts, archiving of data, close out of project grant, etc. The period July 15 and December 31, 2007 represents the mobilization period of Cycle Four. The goals for individual activities are outlined below.

Cycle Four Program Activity Descriptions

The following projects are approved for Cycle Four subproject implementation, commencing in Year Three (October 2006 – September 2007). The project descriptions on the following pages state accomplishments to date and planned activities under the EAC Program Plan for Year Four (October 2007 – September 2008).

1. Activity Name:	Salvage Archaeology Field School – Avenue of the Sphinxes
Principal Consultants:	Ancient Egypt Research Associates (AERA) Directed by Dr. Mark Lehner
Period/Type:	Preservation of Cultural Heritage
Location:	East Bank, Luxor
Start Date:	March-07
End Date:	March-08
Budget (LE):	2,477,526

Statement of the Project:

One of Luxor's urban renewal activities currently underway is a project to restore the ancient Avenue of the Sphinxes running between Luxor and Karnak temples. In response to the SCA's request for intensive training of local inspectors to enable them to deal with the increased demand for emergency archaeological and excavation interventions, ARCE will implement a Salvage Archaeology Field School in Luxor.

Approximately 30 SCA inspectors will receive training, to be supervised by 16 foreign and 16 Egyptian site supervisors covering all aspects of modern standard archaeological practice including excavation and recording techniques, surveying, osteo-archaeology, archaeo-botany, zoo-archaeology, ceramics, illustration and report writing. Trainee's time will be divided over classroom sessions, independent reading and research, participatory topic presentations, and actual fieldwork in a controlled setting.

Accomplishments in Year Five: Based on the proposal submitted in Year 3, the field school was planned and implemented from January 5th to March 27, 2008. The training course took place on the site of the now demolished Khaled Ibn al-Walid Gardens in the Avenue of Sphinxes that extends between Luxor and Karnak temples. 24 students (SCA inspectors) were trained in emergency salvage archaeology techniques by 16 foreign and 16 Egyptian site supervisors. The site yielded evidence of structures lying beneath the 30th dynasty sphinx bases and for the Roman and later stratigraphic sequence.

Total expenditures in Year Six: LE 2,477,526 spent to date

2. Activity Name:	Documentation of Luxor's Historic Buildings
Principal Consultants:	Hampikian-Ibrashi, Architecture & Heritage Management
Period/Type:	Preservation of Cultural Heritage
Location:	East Bank, Luxor
Start Date:	March-07
End Date:	March-08
Budget (LE):	175,574

Statement of the Project:

Two historic buildings lie in the path of the soon-to-be restored Avenue of the Sphinxes: the Abu'l Muqashqish mosque and the municipal police station, which is believed to have been built with ancient blocks. Prior to their imminent demolition, ARCE plans to contract with Dr. Nairy Hampikian & Dr. May al-Ibrashi to survey and record both buildings.

A third building, the Abul Hajjaj mosque, built within the Luxor Temple, was damaged by fire in 2006. In 2007, SCA renovation work removed plaster from interior walls, revealing the archaeology of the standing building. In response to an unprecedented opportunity to record this important structure, Dr. Hampikian and Dr. al-Ibrashi were given permission to undertake a building study of the mosque in collaboration with the SCA.

Implementation Schedule: The Abul Muqashqish mosque documentation was scheduled to commence in July 2007. The Abul-Hajjaj mosque project is scheduled to begin in December 2007.

Accomplishments in Year Five: Documentation work on the **Abul Hajjaj Mosque** began in December 2007, with the exposure of the architraves and columns of the Ramessess II colonnades of the temple court. Documentation of the **Police Station** and **Abul Muqashqish Mosque** was delayed due to the fact that both sites were not vacated until mid-2008. Work started in July on the mosque, and the police station later. Final reports for both historic sites containing drawings, plans and photographic documentation were delivered in Year Five and are under review by ARCE.

Estimated expenditures in Year Six: LE 61,676 (LE 113,898 spent to date)

Budget Explanation

The EAC Grant Agreement No: 263-A-00-04-00018-00 states under Article A.13.4, Advance Payment, that “One year’s worth of operation cost plus cycle funds will be disbursed in advance in two separate tranches. Further release of cycle funds will depend upon the grantee’s plan, subgrant completion and review and concurrence by the CTO.”

ARCE herein submits its budget and implementation plan for Year Six of the EAC Grant, and requests approval for the release of Year Six operating costs, plus the remaining program/cycle funds obligated under Modification No. 5. Funds remaining in the current obligation are LE 452,619.

In its Year Three Workplan, ARCE requested USAID approval for this budget revision, submitting a detailed budget for its ARCE-managed Cycle Three Program. This followed after discussions with the USAID/Cairo program office during the period April – June 2007, during which it was agreed that ARCE would establish a financial monitoring system that allows reporting of progress on the five ARCE-managed activities in Luxor. Part of the costs in the Modification No. 1 OE budget were allocated to each specific ARCE-managed outputs.

On July 30, 2008, ARCE sent a proposal to USAID for furthering conservation and training initiatives by extending the EAC grant through July 2014. The proposal requested additional OE and program/cycle expenses – and increase of LE 36,609,183. USAID approved this extension on July 7, 2009, increasing the estimated EAC budget from 113,241,970 to LE 149,851,153.

Attached are two budget summary pages detailing ARCE’s 10-year summary budget (Attachment No. 1) and ARCE’s 10-year program (Cycle) budgets (Attachment No. 2).